

Work Order ID 155427

Monday, January 16, 2017 10:56:47 AM

155427

OK 1/17/17

Page 1

Item ID: D119-646-041 Accept

Revision ID: URF 15-560

Item Name: AW119 Replacement Skidtube with Wearpads - Fits LH or RH

Start Date: 2/6/2017 Start Qty: 1.00 *1*

Required Date: 2/28/2017 Req'd Qty: 1.00 *1*

Reference: 1/2/03/2017 MF
1/14/2017

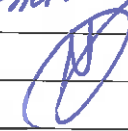
N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals: Process Plan:  Date: JAN 16 2017 Tooling:

QC:  Date: SPC (Y/N):

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3887-041	D
IIN-D119-646	C

100 0.00

100

DC

Doc.Control -USB or Paperwork

Memo 0.00

Photocopy bluefile & type labels per PPP D119-646-041 CHG004

habe

MAR 27 2017

DAS
21
9-88

110 0.00

110

Skidtubes

Skidtubes

Memo 0.00

1- inspect Mat'L D2500-1-190 for damage

2-Cut tube to length as per dwg D3887 (154.8")

3- Ensure squareness of ends and scribe batch#

1 & 12-03-06
IT.

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause				FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
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Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
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Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							

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Page 2

Item ID: D119-646-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: URF 15-560 Stop ***NS2***
Item Name: AW119 Replacement Skidtube with Wearpads - Fits LH or RH
Start Date: 2/6/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 2/28/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00				(X)			20170310 BEB.
121 *121* QC Quality Control	QC7-Inspect Chemical Conversion Coat Memo	0.00 0.00							DAS 03 9-09 17-3-8
122 *122* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00							DAS 03 9-09 17-3-8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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155427

Page 3

Accept

N900040100

Setup Start *NS1*

Item Name: AW119 Replacement Skidtube with Wearpads - Fits LH or RH

Stop *NS2*

Start Date: 2/6/2017 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 2/28/2017 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/
Work Center ID

Operation Description

Set Up/ Run Hours

Tool ID**Tool #****Plan
Code**

Accept Qty

Reject Qty

Reject
Number

**Insp.
Stamp**

130

0.00

130

0.00

Skidtubes

Skidtubes

Memo

1- Install drill Jig DT9477 drill X-bolt spacer pilot holes using 3/16" drill first side only.

2- 2nd side, locating from first saddle holes use DT9861 A/B to drill 2nd side fwd saddle holes.

3- 2nd side locating from fwd saddle drill remaining crossbolt spacer holes using DT9477

4- Open crossbolt spacer holes to finished size as per dwg D3887 (section D-D and E-E) ***DO NOT OPEN FWD Saddles Holes***

5- Debur, blow out chips from inside of tube.

6- Bond web in place as per Dwg D3887 & QSI 015.

A/RSikaflex-291 M136652

Sikaflex expire date: 17-12-07

Start: _____ Time: _____

Finish: _____ Time: 16:00

*** (Adhere for 12 hours) ***

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Crushing ☐	Countersink ☐	Off-set ☐																																																																									
Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐																																																																									
Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐																																																																									
Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐																																																																									
Positioned Wrong ☐	Outside Dimensions ☐																																																																										
Over/Under tolerance ☐	Part Incorrect ☐																																																																										
Part Lost/Missing ☐	Part Moved ☐																																																																										
Drawing ☐	Finish ☐																																																																										
Misread ☐	Turning Sequence ☐																																																																										
OTHER :																																																																											

Work Order ID 155427

Monday, January 16, 2017 10:56:47 AM

155427

Page 4

Item ID: D119-646-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: URF 15-560 Stop ***NS2***
Item Name: AW119 Replacement Skidtube with Wearpads - Fits LH or RH
Start Date: 2/6/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 2/28/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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135

QC5- Inspect part completeness to step on W/O

0.00

135

QC

Memo

0.00

Quality Control

DAS
18
3-3

1 0 17-03-10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐				
Date : _____	Step #: _____	QTY Effective : _____			MRB (QSI042) Approval ☐	
Description Work Order Deviation		Disposition			Completed By	
					Lead hand / Supervisor Approval Verification	
					QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY				
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	
OTHER : ☐						

Work Order ID 155427

Monday, January 16, 2017 10:56:47 AM

155427

Page 5

Item ID: D119-646-041 Accept

Revision ID: URF 15-560

Item Name: AW119 Replacement Skidtube with Wearpads - Fits LH or RH

Start Date: 2/6/2017 Start Qty: 1.00 *1*

Required Date: 2/28/2017 Req'd Qty: 1.00 *1*

Reference:

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140		0.00							
140									
Skidtubes									
Skidtubes									
	Memo	0.00							
	1- Bend FWD end of tube using bender 1 and FOLIO 31 bend prog. D3887.***Must use bending aid DT9544, ensure proper positioning***								
	2- Cut FWD end of tube as per dwg D3887.***Verify measurement***								
	3- Buff out marks left from bending								
	4- Drill FWD cap holes using DT8215. Open FWD & AFT cap holes to 0.208"								
	5- Open FWD saddle holes to finished size as per dwg D3887								
	6- Drill FWD x-bolt spacer holes using DT9816 and open to finished size.(verify measurement)								
	7- Drill Tow ring hole, using DT10047 locate from FWD saddle hole. (verify measurement). Open to finished size.								
	8- Drill 1.87" and 3.74 holes using DT10045 A&B locate from FWD saddle hole. (verify measurement) as per dwg.								
	9- C'sink FWD cap hole as per detail "C"								
	10- Drill holes for wearpads using DT8931, open to 0.297".								
	11- Countersink crossbolt spacer holes, and prepare tube for welding, deburr.								
	12- Deburr and blow out chips from inside of tube.								

17-3-10

MGG 17/03/13
DT

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Work Order ID 155427***155427***

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Item ID: D119-646-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: URF 15-560 Stop ***NS2***
Item Name: AW119 Replacement Skidtube with Wearpads - Fits LH or RH
Start Date: 2/6/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 2/28/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC5- Inspect part completeness to step on W/O	0.00							
150									
QC	Memo	0.00							
Quality Control									

DAS
18
2-89
1 0 17-03-14

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																	
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OTHER :																																																																					

Work Order ID 155427

Monday, January 16, 2017 10:56:47 AM

155427

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Item ID:	D119-646-041	Accept	*N900040100*	Setup	Start	*NS1*
Revision ID:	URF 15-560				Stop	*NS2*
Item Name:	AW119 Replacement Skidtube with Wearpads - Fits LH or RH					
Start Date:	2/6/2017	Start Qty:	1.00			
Required Date:	2/28/2017	Req'd Qty:	1.00	Cust Item ID:		
Reference:				Customer:		

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:		Stop	*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160		0.00							
160									
Skidtubes	Memo	0.00							
Skidtubes	NOTE:TACK IN 2 MOST FWD X-BOLT SPACERS AND TEST FIT FWD GROUND HANDELING FIXTURE,IF FIXTURE FITS WELL THEN PROCEED. FIXTURE DT10091.								
	1-Insert crossbolt spacers. Weld as per QSI 004 and Dwg D3887. Remember to back drill each hole before welding the other side. Use aluminum rod A/RAluminum Rod <u>ML3615.8</u>								
	2-Grind cross bolt welds flush as per Dwg D3887. Ensure no pin hole.								
	3-Counterbore 5/16" x 0.750" deep as per Dwg D3887.								
	4- Deburr & Scribe batch # on Aft end of tube.								
170	QC5- Inspect part completeness to step on W/O	0.00							
170									
QC	Memo	0.00							
Quality Control	TEST FIT USING FIXTURE DT10091.								

7 0217-03-14

0217-03-15

17-3-15

DAS
38
9-20

MAR 16 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Work Order ID 155427

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155427

Page 8

Item ID: D119-646-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: URF 15-560 Stop ***NS2***
Item Name: AW119 Replacement Skidtube with Wearpads - Fits LH or RH
Start Date: 2/6/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 2/28/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 *180* QC Quality Control	QC10- Inspect visual per QSI004- ground welds Memo	0.00 0.00							DAS 38 9-88 MAR 16 2017
190 *190* HandFinish Hand Finishing	Pressure Wash per QSI005 4.3 Memo Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.	0.00 0.00							(x1) 2017/03/16 BEB.
200 *200* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum M 136657 Memo START TIME: 8:45 OVEN TEMPERATURE: 320 FINISH TIME: 9:15	0.00 0.00							1 0 17-03-21 333

★
SEE
Attached

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																															
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Work Order ID 155427

Monday, January 16, 2017 10:56:47 AM

155427

Page 9

Item ID: D119-646-041 Accept

Revision ID: URF 15-560

Item Name: AW119 Replacement Skidtube with Wearpads - Fits LH or RH

Start Date: 2/6/2017 Start Qty: 1.00 *1*

Required Date: 2/28/2017 Req'd Qty: 1.00 *1*

Reference:

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	QC3- Inspect Part Finish	0.00							
210									
QC	Memo	0.00							
Quality Control									
220		0.00							
220									
HandFinish	Memo	0.00							
Hand Finishing	1-Install inserts as per Dwg D3887.								
230	QC5- Inspect part completeness to step on W/O	0.00							
230									
QC	Memo	0.00							
Quality Control									

DAS
15
9-89(X1) 201703/22
BEBDAS
15
9-89

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
OTHER : ☐									

Work Order ID 155427

Monday, January 16, 2017 10:56:47 AM

155427

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Item ID: D119-646-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: URF 15-560 Stop ***NS2***
Item Name: AW119 Replacement Skidtube with Wearpads - Fits LH or RH
Start Date: 2/6/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 2/28/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240		0.00							
240 HandFinish Hand Finishing	Memo 1-Install wearpads, gaskets as per Dwg D3887. Put sikaflex in insert before installing bolts and washers A/R Sikaflex-240/-291 <u>M136652</u> Sikaflex expire date: <u>17/12</u> 2-assemble o'ring to plug as per dwg D3492 and apply o'ring lube A/R 55-o'ring lube batch: <u>M135473</u> 3 -Inspect for foreign objects as per QSI 024 4 -Install Aft Cap and seal with Sikaflex. Clean excess adhesive. A/R Sikaflex-240/-291 <u>M136652</u> Sikaflex expire date: <u>17/12</u>	0.00							
245									
245 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00							

Handwritten notes: RTU-588, Exp 18/04, M135385, 2017/03/22, BEB., 68-6, 88, 890

MAR 23 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐			FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		
OTHER : ☐					

Work Order ID 155427***155427***

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Item ID: D119-646-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: URF 15-560 Stop ***NS2***
Item Name: AW119 Replacement Skidtube with Wearpads - Fits LH or RH
Start Date: 2/6/2017 Start Qty: 1.00 *1* Cust Item ID:
Required Date: 2/28/2017 Req'd Qty: 1.00 *1* Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
250	Wing Walk as per dwg QSI005 4.4 Batch <u>M137092</u>	0.00							
250									
HandFinish	Memo	0.00							2017/03/22 BEB
Hand Finishing									
251	QCS- Inspect part completeness to step on W/O	0.00							
251									
QC	Memo	0.00							DAS 38 9-09 MAR 23 2017
Quality Control									
260	Identify as per dwg & Stock Location <u>W/O</u>	0.00							
260									
Packaging	Memo	0.00							17/03/24
Packaging									

POSITIVE RECALL

JAN 16 2017

EFFECTIVE _____ AUTH _____

RELEASED _____ DATE 17/3/27

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause				FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish. ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Work Order ID 155427

Monday, January 16, 2017 10:56:47 AM

155427

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Item ID: D119-646-041 Accept

Revision ID: URF 15-560

Item Name: AW119 Replacement Skidtube with Wearpads - Fits LH or RH

Start Date: 2/6/2017 Start Qty: 1.00 *1*

Required Date: 2/28/2017 Req'd Qty: 1.00 *1*

Reference:

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*

Stop *NR2*

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

270

QC21- Final Inspection - Work Order Release

0.00

270

QC

Memo

0.00

Quality Control

17/3/27 JF

MAR 27 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																
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Picklist Print

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Page 1

Work Order ID: 155427

155427

Parent Item: D119-646-041

D119-646-041

Parent Item Name: AW119 Replacement Skidtube with Wearpads - Fits LH or RH

Start Date: 2/6/2017

Required Date: 2/28/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP RevA: New issue DD verified by:EC
10.02.22 per PAR 09-043 EC verified by:DD IPP rev B
(DEOD3887-B-1)(ecn 12-675) DD verf:JLM IPP REV:D 13.03.20 per
chg003 ECN13-534 DD verf:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2500-1-190

Manufactured No

110

Each

86.0000

1

1

D2500-1-190

Ext'n -1' Beam Tube 4"

**

17-03-06
D7.

Location

Loc Qty

Loc Code

HALL

86

145247

10

151612

76

D2579

Manufactured No

140

Each

57.0000

2

2

D2579

Crossbolt Spacer

**

BE17-03-14

Location

Loc Qty

Loc Code

LG001

57

123997

1

141711

56

D2855-3

Manufactured No

240

Each

6.0000

2

2

D2855-3

Cap

**

2017/03/22 / BEB

Location

Loc Qty

Loc Code

FP001

6

142564

4

151614

2

*B15329/

x1

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																
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Picklist Print

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Page 2

Work Order ID: 155427

155427

Parent Item: D119-646-041

D119-646-041

Parent Item Name: AW119 Replacement Skidtube with Wearpads - Fits LH or RH

Start Date: 2/6/2017

Required Date: 2/28/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1611-005

Purchased No

240

Each

334.0000

16

16

NAS1611-005

O-RING

**

2017/03/22/BEB

Location

Loc Qty

Loc Code

FP001

334

m136184

42

m136192

92

m136377

200

x16

D3492-5

Manufactured No

240

Each

294.0000

16

16

D3492-5

Plug

**

2017/03/22/BEB

Location

Loc Qty

Loc Code

FP001

294

133396

8

136396

6

152195

135

152814

3

153738

70

*154740

72

x16

D3672-1

Manufactured No

240

Each

810.0000

2

2

D3672-1

Washer, Phenolic

**

2017/03/22/BEB

Location

Loc Qty

Loc Code

FG

10

85222

10

FP001

738

112218

4

134785

234

150074

500

x2

ST049

62

147077

62

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Shop Packet Print

Page 2

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
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OTHER : ☐					

Picklist Print

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Page 3

Work Order ID: 155427

155427

Parent Item: D119-646-041

D119-646-041

Parent Item Name: AW119 Replacement Skidtube with Wearpads - Fits LH or RH

Start Date: 2/6/2017

Required Date: 2/28/2017

Start Qty: 1.00

Required Qty: 1.00

D3681-1

Manufactured No

160

Each

105.0000

8

8

D3681-1

Spacer

**

B617-03-14

Location

Loc Qty

Loc Code

LG001

105

145956

1

151967

4

153806

50

154179

50

8

D3847-1

Manufactured No

240

Each

72.0000

5

5

D3847-1

Wearpad

**

2017/03/22 BEB

Location

Loc Qty

Loc Code

FP001

72

152441

9

153009

5

153010

22

153011

22

153503

14

x5

D3847-11

Manufactured No

240

Each

22.0000

1

1

D3847-11

Wearpad

**

2017/03/22 BEB

Location

Loc Qty

Loc Code

FP001

22

151985

4

151986

2

154225

2

154349

14

x1

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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OTHER : ☐ _____					

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Work Order ID: 155427

155427

Parent Item: D119-646-041

D119-646-041

Parent Item Name: AW119 Replacement Skidtube with Wearpads - Fits LH or RH

Start Date: 2/6/2017

Required Date: 2/28/2017

Start Qty: 1.00

Required Qty: 1.00

D3885-1

Manufactured No

140

Each

2.0000

1

1

D3885-1

Standard Web

**

17-03-08
37.

Location

LG002

Loc Qty

2

Loc Code

152609
153347

2

160

Each

44.0000

12

12

**

BE 17-03-14
8156389 *12

D3903-1

Manufactured No

D3903-1

Spacer

Location

LG001

Loc Qty

44

Loc Code

152993

44

220

Each

6,456.000

30

30

**

2017/03/22 / BER.

ALS4-1032-130

AELS4-1032-130 Purchased

No

ALS4-1032-130

Rivnut

Location

CCK007

Loc Qty

5000

Loc Code

M136579

5000

FG

50

FG

M135442

50

FP001

1406

M133077

72

M135442

1334

x30

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																																							
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Work Order ID: 155427

Parent Item: D119-646-041

Parent Item Name: AW119 Replacement Skidtube with Wearpads - Fits LH or RH

155427

D119-646-041

Start Date: 2/6/2017

Required Date: 2/28/2017

Start Qty: 1.00

Required Qty: 1.00

AN3C5A

Purchased No

240

Each

1,004.000

32

32

AN3C5A

Bolt

2017/03/22/ BEB
x32

**M136648*

Location

Loc Qty

Loc Code

FG

5

122800

5

FP001

403

M136047

403

OVER002

400

M136182

100

M136450

200

M136579

100

ST350

196

M134676

2

M135442

194

Each

4,358.000

32

2017/03/22/ BEB
x32

NAS1149C0332R

Purchased

No

NAS1149C0332R

WASHER

**M136975*

Location

Loc Qty

Loc Code

FP001

1044

m136301

1044

GA

44

m133284

44

ST260a

2500

m135408

0

m135766

500

m135908

200

m136042

500

m136444

500

m136537

800

ST266

770

m135408

9

m135466

761

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
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Parent Item: D119-646-041

Parent Item Name: AW119 Replacement Skidtube with Wearpads - Fits LH or RH

155427

D119-646-041

Start Date: 2/6/2017

Required Date: 2/28/2017

Start Qty: 1.00

Required Qty: 1.00

MS24694-C52

Purchased

No

Each

90.0000

2

MS24694-C52

SCREW

**

2017 103/22 / BFB

Location

Loc Qty

Loc Code

FP001

86

m135978

86

ST285

4

m127059

4

x2

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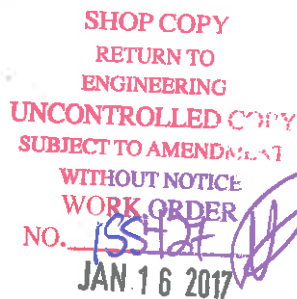
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Work Order update only ☐

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D3887-041 STANDARD SKIDTUBE ASSY WITH WEARPAD (SHOWN)
D3887-043 STANDARD SKIDTUBE ASSY WITH WEARPLATE (SIMILAR)
D3887-045 STANDARD SKIDTUBE ASSY WITH TRAINING WEARPLATE (SIMILAR)

- NOTES:**
1) MATERIAL: N/A
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING D3885-1 WEB
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.006 TO 0.010 MAX
6) IDENTIFICATION: NONE
7) WEIGHT: D3887-041 = 52.0 lbs
D3887-043 = 37.0 lbs
D3887-045 = 38.1 lbs
8) WELD PER DART QSI 004
9) DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 8.5 INCHES
ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020" DEEP IN THE BENT
PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.180" IS ACCEPTABLE IN THE BENT
PORTION OF THE TUBE.
10) INSERT D3885-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE
WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 018 BEFORE BENDING. ENSURE HOLES LINE-UP
11) INSERT D3482-045 PLUG ASSY INTO Ø0.197 HOLES (BOTH SIDES OF TUBE)
12) USE DART DRILL TEMPLATE DT8831 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARPLATE INSERTS.
INSTALL AELS-1032-130 INTO D3887-11 ONLY. INSTALL ANSCA BOLTS AND NAS1149C332Z WASHERS
WITH SIKAFLEX-241/-291.

ITEM	QTY -041	QTY -043	QTY -046	P/N	DESCRIPTION
1	X			D3867-041	STD SKIDTUBE ASSY WITH WEARPAD
2		X		D3867-043	STD SKIDTUBE ASSY WITH WEARPLATE
3			X	D3867-046	STD SKIDTUBE ASSY WITH TRAINING WEARPLATE
10	2	2	2	D2676	CROSS BOLT SPACER
11	2	2	2	D2666-3	CAP
12	16	16		D3482-046	PLUG ASSY
13	2	2	2	D3672-1	PHENOLIC WASHER
14	6	6	6	D3661-1	SPACER
17	5	5		D3647-1	WEARPAD
18	1	1		D3647-11	AFT WEARPAD
19		1		D3647-043	FWD WEARPLATE ASSY
20		1		D3647-046	CENTER WEARPLATE ASSY
21		1		D3647-047	AFT WEARPLATE ASSY
22			1	D3649-041	FWD TRAINING WEARPLATE ASSY
23			1	D3649-043	AFT WEARPLATE ASSY
24	1	1	1	D3665-1	STANDARD WEB
25	1	1		D3667-11	STANDARD SKIDTUBE
26			1	D3667-13	STANDARD SKIDTUBE
27	12	12	12	D3603-1	SPACER
28			16	D3604-1	WASHER
41	30	30		AL84-1032-130	INSERT
42	32	32	2	AN5C5A	BOLT
43			8	AN5C46A	BOLT
44	32	32		NA91148C0332R	WASHER (OR AN680C10L)
45			8	MS21043-3	NUT
46	2	2	2	MS24894-CS2	SCREW

RELEASED

UNDER REVIEW

2014 NOV 24 *sp*

ECN 14-6292

15.04.30 URF15-560 AP

[illegible]

AN3C5A BOLT
D3672-1 PHENOLIC WASHER
NAS1148C0332R WASHER
(1 PER SIDE)

SEAL WITH
SIKAFLEX-241/291

D2855-3 CAP

D3847-11
WEARPAD

AN3C5A BOLT
NAS1148C0332R WASHER
24 PL

PLUG UNUSED INSERTS WITH
AN3C5A BOLT
NAS1148C0332R WASHER
6 PL

D3847-1
WEARPAD
6 PL

MS24684-C52 SCREW
(1 PER SIDE)

D2855-3 CAP

SEAL WITH
SIKAFLEX-241/291

BLACK ANTI-SKID TO 0.5
ABOVE LOCATION RIDGE
TYP

11
Ø0.187
8 PL PER SIDE
REF

1.5
1.5
1.5

1.5
1.5

2.00 DISTANCE TO D3885-1 WEB, REF

D3887-041 STANDARD SKIDTUBE ASSY WITH WEARPAD
(MAKE FROM D3887-11)

UNDER REVIEW
15.04.30 URF15-560 AP

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2014 NOV 24 *ap*

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DE APPR.		A119 STD SKIDTUBE ASSY	NTS
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AN3CSA BOLT
D3672-1 PHENOLIC WASHER
NAS1146C0332R WASHER
(1 PER SIDE)

SEAL WITH
SIKAFLEX-241/201

D2855-3 CAP

D3847-11
WEARPAD

D3847-047
AFT WEARPLATE ASSY

AN3CSA BOLT
NAS1146C0332R WASHER
30 PL

D3847-045
CENTER WEARPLATE ASSY

D3847-043
FWD WEARPLATE ASSY

D3847-1
WEARPAD
5 PL

BLACK ANTI-SKID TO 0.8
ABOVE LOCATION RIDGE
TYP

11
Ø0.187
8 PL PER SIDE
REF.

D2855-3 CAP

SEAL WITH
SIKAFLEX-241/201

MS24684-C82 SCREW
(1 PER SIDE)

D3857-043 STANDARD SKIDTUBE ASSY WITH WEARPLATE
(MAKE FROM D3857-11)

UNDER REVIEW

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AN3C6A BOLT
D3672-1 PHENOLIC WASHER
NAS1149C0332R WASHER
(1 PER SIDE)

SEAL WITH
SKAFLEX-241/2291

D2865-3 CAP

AN3C48A BOLT
D3804-1 WASHER, 2 PL
MS21043-3 NUT
8 PL

D3849-043
AFT TRAINING WEARPLATE ASSY

BLACK ANTI-SKID TO 0.5
ABOVE LOCATION RIDGE
TYP

2.00 DISTANCE TO D3885-1 WEB

1.5 1.5 1.5 1.5

D3849-041
FWD TRAINING WEARPLATE ASSY

D2865-3 CAP

SEAL WITH
SKAFLEX-241/2291

MS24884-C52 SCREW
(1 PER SIDE)

D3887-045 STANDARD SKIDTUBE ASSY WITH TRAINING WEARPLATE
(MAKE FROM D3887-13)

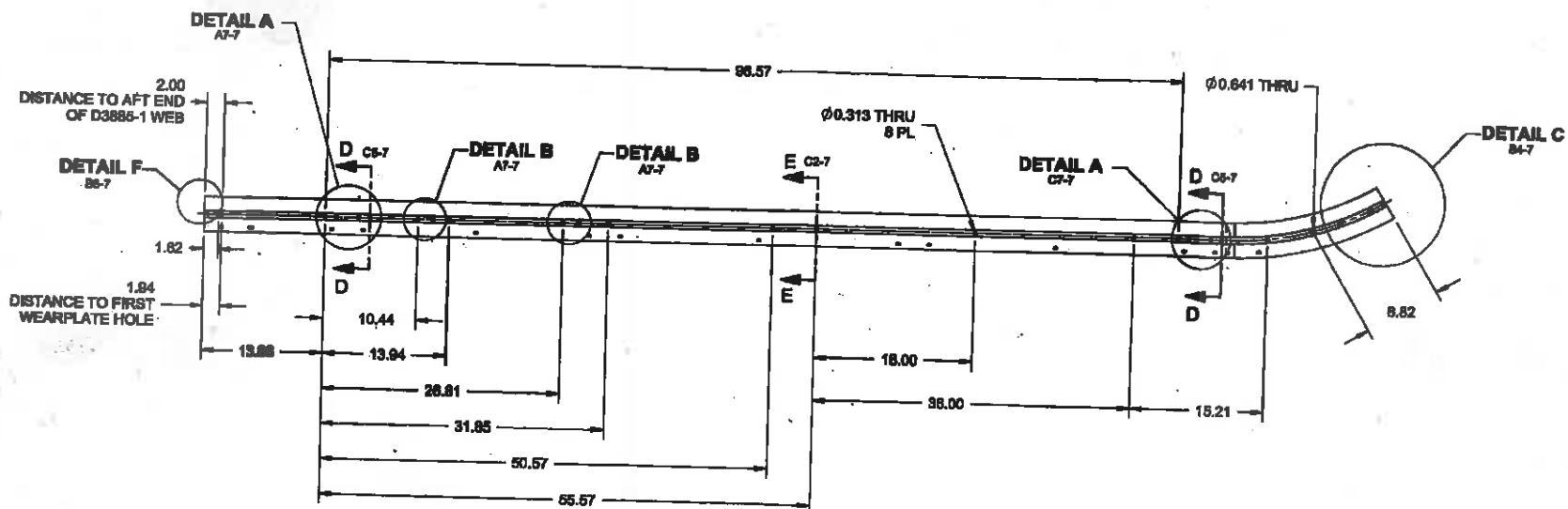
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D3887-11 DRILLING DETAIL
(MAKE FROM D3887-1)

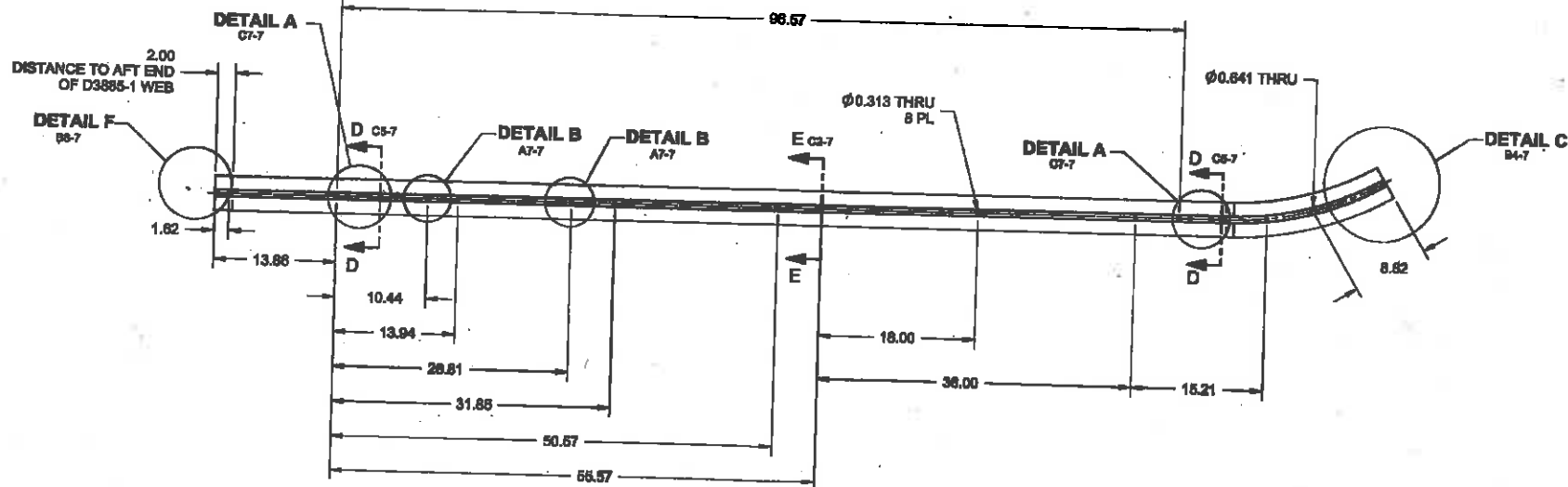
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D3887-13 DRILLING DETAIL
(MAKE FROM D3887-1)

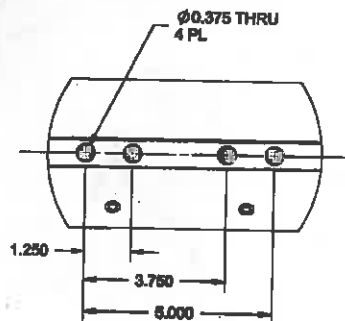
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15.04.30 URF15-580 AP

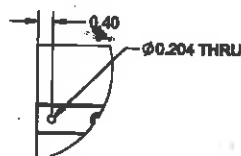
RELEASED

2014 NOV 24 *up*

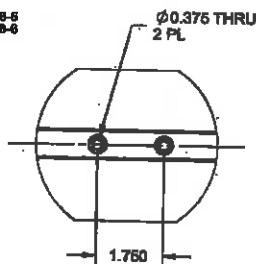
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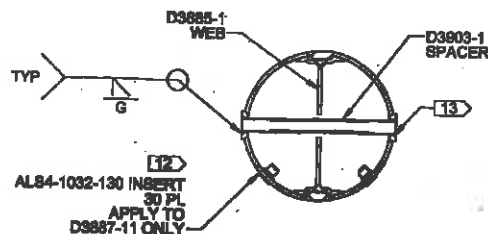
DETAIL A
SCALE 4X
D7-5
C3-5
D7-6
C3-6



DETAIL F
SCALE 4X
C3-5
C3-6

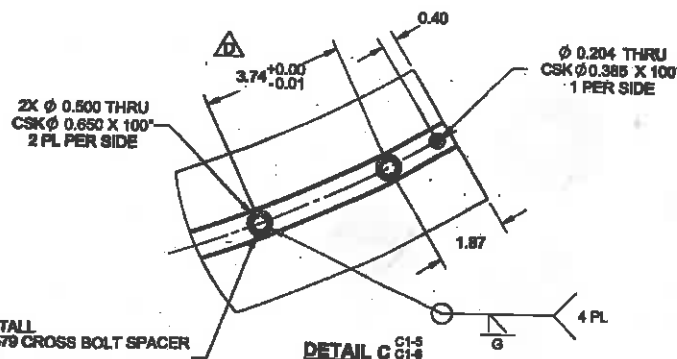


DETAIL B
SCALE 4X
C3-5
C3-6
C3-6
C3-6

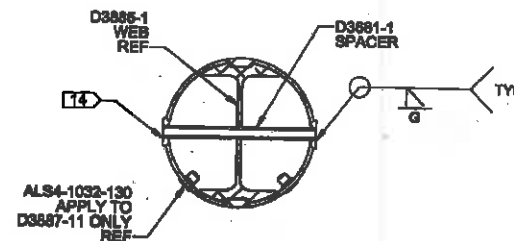


SECTION D-D
SCALE 4X
C7-5
C3-5
C7-6
C3-6

(FOR 12 X Ø0.375 HOLES PER SKIDTUBE)



DETAIL C
SCALE 4X
C1-5
C1-6



SECTION E-E
SCALE 4X
C4-5
C4-6

(FOR 8 X Ø0.313 HOLES PER SKIDTUBE)

NOTES:

13) AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR Ø0.375 HOLES ONLY:

- i) CHAMFER HOLES Ø0.476 x 45°
- ii) INSERT D3803-1 SPACER
- iii) WELD INTO PLACE AND GRIND FLUSH
- iv) CBORER TO 0.313 x 0.75 DEEP
- v) DEBURR HOLES

14) AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR Ø0.313 HOLES ONLY:

- vi) CHAMFER HOLES Ø0.364 x 45° OR 0.050 DEEP x 45° (BOTH SIDES)
- vii) INSERT D3881-1 SPACER
- viii) WELD INTO PLACE AND GRIND FLUSH
- ix) DEBURR HOLES

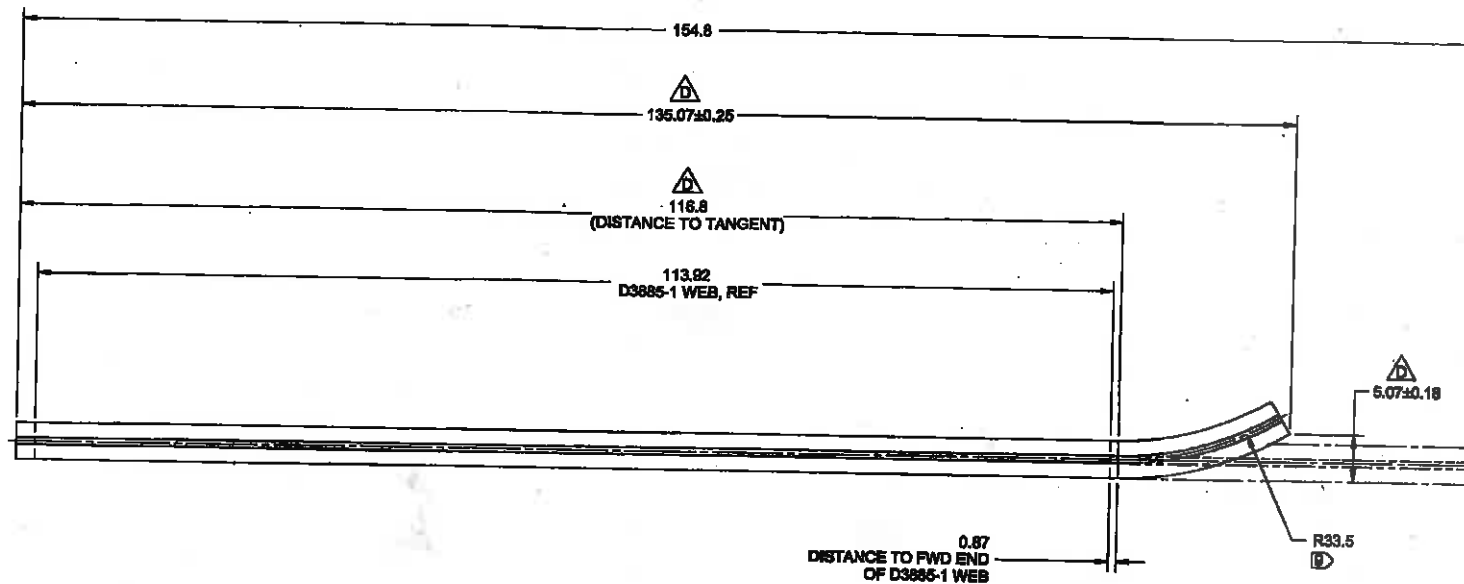
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D3887-1 BEND DETAIL
(MAKE FROM D3885-1-100 EXTRUSION)

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DE APPR.	<i>[Signature]</i>		
DATE	13.09.20		

DQA: _____ Date: _____

QA Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATEWork Order update only ☒

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION
 Rework ☒
 Scrap ☐
 Use-as-is ☐
 Suspected Unapproved ☐
AGAINST DEPARTMENT/PROCESS

Skid-tube	☐	Cross tube	☐	Water Jet	☐	Engineering	☒
Machining	☐	Small Fab	☐	Prod. Eng. Coord.	☐	Quality	☐
Thermoforming	☐	Finishing	☐	Rec/Store/Packaging	☐	Other	☐
Large Fab	☐	Composite	☐	Supplier	☐		

Date : 200 12/1/19Step #: 200

QTY Effective :

MRB (QSI042) Approval

 DAS
 12
 9-89
12/1/19
Description Work Order Deviation**Disposition**

Do not powder coat saddle mating surface
 per customer request, a/c time only.

Finish per attached drawing

Completed By

1703-21 333
Lead hand / Supervisor
Approval VerificationQC / QA Coordinator
Approval**Root Cause**

Environment	☐	No Re-verification	☐
Design	☐	Operator	☐
Doc/Data	☒	Offset/Setup	☐
Equip/Tooling	☐	Supplier	☐
Handling/Pre	☐	Training	☐
Material	☐	Use for Testing	☐
Internal Transport	☐	Poor Information	☐
Tribal Knowledge	☐	Rushing	☐
LOA	☐	Product Improvement	☐
Substation	☐	Process Improvement	☐
Past Expiry Date	☐	Manufacturing Process	☐
Misidentified	☐	Past Due	☐

Pressure/Forced	☐
Bending	☐
Centre Not Concentric	☐
Cracks	☐
Crimp/Kink/Ripple/Wave	☐
Cuffs	☐
Crushing	☐
Heat Treat	☐
Wave/Twist in Tube	☐
Marks/Chatter	☐

FAULT CATEGORY

Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Contamination	☐	Out of Sequence	☐	Part Moved	☐
Countersink	☐	Off-set	☐	Drawing	☐
Cut Too Short	☐	Mislabeled	☐	Finish	☐
Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐

☒ OTHER: Customer request

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☒

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☒ Quality ☐ Other ☐																																																																																																											
Date : <u>240</u> <u>17/1/19</u>		Step #: <u>240</u>		QTY Effective :		MRB (QSI042) Approval <u>DAS</u> <u>12</u> <u>17/1/19</u> <u>9-89</u>																																																																																																									
Description Work Order Deviation				Disposition																																																																																																											
Plug holes with AN3C4A rather than AN3CSA				Acceptable <u>*AN3C-4A *B#M136986</u>																																																																																																											
				Completed By <u>2017/03/22</u> <u>BED</u>																																																																																																											
				Lead hand / Supervisor Approval Verification																																																																																																											
				QC / QA Coordinator Approval																																																																																																											
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: left;">Root Cause</th> <th colspan="4" style="text-align: left;">FAULT CATEGORY</th> </tr> </thead> <tbody> <tr> <td style="width:15%;">Environment</td><td>☐</td> <td style="width:15%;">No Re-verification</td><td>☐</td> <td style="width:15%;">Pressure/Forced</td><td>☐</td> <td style="width:15%;">Temperature/Cure</td><td>☐</td> </tr> <tr> <td>Design</td><td>☐</td> <td>Operator</td><td>☐</td> <td>Bending</td><td>☐</td> <td>Set-up</td><td>☐</td> </tr> <tr> <td>Doc/Data</td><td>☒</td> <td>Offset/Setup</td><td>☐</td> <td>Centre Not Concentric</td><td>☐</td> <td>BOM/Route</td><td>☐</td> </tr> <tr> <td>Equip/Tooling</td><td>☐</td> <td>Supplier</td><td>☐</td> <td>Cracks</td><td>☐</td> <td>Broken/Damage/Defect</td><td>☐</td> </tr> <tr> <td>Handling/Pre</td><td>☐</td> <td>Training</td><td>☐</td> <td>Crimp/Kink/Ripple/Wave</td><td>☐</td> <td>Inspection Incomplete/Unqualified</td><td>☐</td> </tr> <tr> <td>Material</td><td>☐</td> <td>Use for Testing</td><td>☐</td> <td>Cuffs</td><td>☐</td> <td>Contamination</td><td>☐</td> </tr> <tr> <td>Internal Transport</td><td>☐</td> <td>Poor Information</td><td>☐</td> <td>Crushing</td><td>☐</td> <td>Countersink</td><td>☐</td> </tr> <tr> <td>Tribal Knowledge</td><td>☐</td> <td>Rushing</td><td>☐</td> <td>Heat Treat</td><td>☐</td> <td>Cut Too Short</td><td>☐</td> </tr> <tr> <td>LOA</td><td>☐</td> <td>Product Improvement</td><td>☐</td> <td>Wave/Twist in Tube</td><td>☐</td> <td>Instructions Incomplete/Unclear</td><td>☐</td> </tr> <tr> <td>Substation</td><td>☐</td> <td>Process Improvement</td><td>☐</td> <td>Marks/Chatter</td><td>☐</td> <td>Drill Holes</td><td>☐</td> </tr> <tr> <td>Past Expiry Date</td><td>☐</td> <td>Manufacturing Process</td><td>☐</td> <td colspan="4"></td> </tr> <tr> <td>Misidentified</td><td>☐</td> <td>Past Due</td><td>☐</td> <td colspan="4" style="text-align: left;">OTHER :</td> </tr> </tbody> </table>								Root Cause				FAULT CATEGORY				Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Design	☐	Operator	☐	Bending	☐	Set-up	☐	Doc/Data	☒	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Past Expiry Date	☐	Manufacturing Process	☐					Misidentified	☐	Past Due	☐	OTHER :			
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